

IN THE CLAIMS

Please cancel claims 5, 13 and 21, and amend claims 1-4, 6-12, 14-20 and 22-24 as follows:

1. (CURRENTLY AMENDED) A computer-implemented system ~~[[of]]~~ for developing a multi-tier business application ~~[[s]]~~ for execution on a multiple tier network, comprising:

a computer; and

an Integrated Development Environment (IDE), executed by [[a]] the computer, for creating and maintaining [[a]] the multi-tier business application ~~on a multiple tier computer network,~~

wherein the Integrated Development Environment ~~IDE~~ includes a Topological Multi-Tier Business Application Composer that accepts commands from a developer, and in response thereto, graphically creates and maintains the multi-tier business application, the Topological Multi-Tier Business Application Composer includes a window and a palette, the palette contains graphical constructs, representing tiers of the multiple tier computer network and components of each of the tiers, that are used to create and maintain a graphical representation of the multi-tier business application in the window, and when creating the multi-tier business application, accepts commands from the developer, and in response thereto, creates and maintains a number of the tiers, identifies workstations and servers within the components of each of the tiers, and defines processing performed by each of the components of each of the tiers and its components,

wherein the Integrated Development Environment includes a Meta-model that captures and persistently stores information from the Topological Multi-Tier Business Application Composer, the information including hardware, software and communications attributes used for analyzing an optimal deployment configuration for the multi-tier business application, and

wherein the Integrated Development Environment includes an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, and the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.

2. (CURRENTLY AMENDED) The computer-implemented system of claim 1, wherein the ~~icons~~ graphical constructs are dragged from the palette onto the window, and thereafter connected together, in a topological structure for the multi-tier business application.

3. (CURRENTLY AMENDED) The computer-implemented system of claim 1, wherein the components are ~~selected from a group comprising~~ workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

4. (CURRENTLY AMENDED) The computer-implemented system of claim 1, wherein the Topological Multi-Tier Business Application Composer is used ~~to perform one or more actions selected from a group comprising:~~
~~creating the tiers involved in the multi-tier business application;~~
~~specifying the components of each of the tiers; and~~
~~for~~ specifying properties that identify each of the tiers and the components of the tiers.

5. (CANCELED)

6. (CURRENTLY AMENDED) The computer-implemented system of claim [[5]] 1, wherein the captured information is ~~selected from a group comprising~~ information about tiers, workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

7. (CURRENTLY AMENDED) The computer-implemented system of claim [[5]] 1, wherein the Meta-model is updated and kept in synchronization with any updates made to the multi-tier business application via the Topological Multi-Tier Business Application Composer.

8. (CURRENTLY AMENDED) The computer-implemented system of claim [[5]] 1, wherein the Meta-model is accessible by other tools.

9. (CURRENTLY AMENDED) A computer-implemented method for developing multi-tier business application [[s]] for execution on a multiple tier network, comprising:
creating and maintaining [[a]] ~~the~~ multi-tier business application ~~on a multiple tier computer network~~ using an Integrated Development Environment (IDE) executed by a computer,
wherein the Integrated Development Environment IDE includes a Topological Multi-Tier Business Application Composer that accepts commands from a developer, and in response thereto, graphically creates and maintains the multi-tier business application, the Topological Multi-Tier

Business Application Composer includes a window and a palette, the palette contains graphical constructs, representing tiers ~~of the multiple tier computer network~~ and components ~~of each~~ of the tiers, that are used to create and maintain a graphical representation of the multi-tier business application in the window, and when creating the multi-tier business application, accepts commands from the developer, and in response thereto, creates and maintains ~~a number of the~~ tiers, ~~identifies workstations and servers within the components of~~ each of the tiers, and defines processing performed by each ~~of the components of each of the tiers and its components,~~

~~wherein the Integrated Development Environment includes a Meta-model that captures and persistently stores information from the Topological Multi-Tier Business Application Composer, the information including hardware, software and communications attributes used for analyzing an optimal deployment configuration for the multi-tier business application, and~~

~~wherein the Integrated Development Environment includes an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, and the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.~~

10. (CURRENTLY AMENDED) The computer-implemented method of claim 9, wherein the ~~icons~~ graphical constructs are dragged from the palette onto the window, and thereafter connected together, in a topological structure for the multi-tier business application.

11. (CURRENTLY AMENDED) The computer-implemented method of claim 9, wherein the components are ~~selected from a group comprising~~ workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

12. (CURRENTLY AMENDED) The computer-implemented method of claim 9, wherein the Topological Multi-Tier Business Application Composer is used ~~to perform one or more actions selected from a group comprising:~~

~~creating the tiers involved in the multi-tier business application;~~
~~specifying the components of each of the tiers; and~~
~~for specifying properties that identify each of the tiers and the components of the tiers.~~

13. (CANCELED)

14. (CURRENTLY AMENDED) The computer-implemented method of claim [[13]] 2, wherein the captured information is ~~selected from a group comprising~~ information about tiers, workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

15. (CURRENTLY AMENDED) The computer-implemented method of claim [[13]] 2, wherein the Meta-model is updated and kept in synchronization with any updates made to the multi-tier business application via the Topological Multi-Tier Business Application Composer.

16. (CURRENTLY AMENDED) The computer-implemented method of claim [[13]] 2, wherein the Meta-model is accessible by other tools.

17. (CURRENTLY AMENDED) An article of manufacture ~~embodying logic~~ comprising a device for storing instructions that, when read and executed by a computer, cause the computer to perform a method for developing multi-tier business application [[s]] for execution on a multiple tier network, the logic method comprising:

creating and maintaining [[a]] ~~the~~ multi-tier business application ~~on a multiple tier computer network~~ using an Integrated Development Environment (IDE) executed by a computer,

wherein the ~~Integrated Development Environment IDE~~ includes a Topological Multi-Tier Business Application Composer that accepts commands from a developer, and in response thereto, graphically creates and maintains the multi-tier business application, the Topological Multi-Tier Business Application Composer includes a window and a palette, the palette contains graphical constructs, representing tiers ~~of the multiple tier computer network~~ and components ~~of each~~ of the tiers, that are used to create and maintain a graphical representation of the multi-tier business application in the window, and when creating the multi-tier business application, accepts commands from the developer, and in response thereto, creates and maintains ~~a number of the~~ tiers, ~~identifies workstations and servers within the components of~~ each of the tiers, and defines processing performed by each ~~of the components of each of the tiers and its components~~,

wherein the Integrated Development Environment includes a Meta-model that captures and persistently stores information from the Topological Multi-Tier Business Application Composer, the

information including hardware, software and communications attributes used for analyzing an optimal deployment configuration for the multi-tier business application, and wherein the Integrated Development Environment includes an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, and the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.

18. (CURRENTLY AMENDED) The article of manufacture of claim 17, wherein the ~~icons~~ graphical constructs are dragged from the palette onto the window, and thereafter connected together, in a topological structure for the multi-tier business application.

19. (CURRENTLY AMENDED) The article of manufacture of claim 17, wherein the components are ~~selected from a group comprising~~ workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

20. (CURRENTLY AMENDED) The article of manufacture of claim 17, wherein the Topological Multi-Tier Business Application Composer is used ~~to perform one or more actions selected from a group comprising:~~
creating the tiers involved in the multi-tier business application;
specifying the components of each of the tiers; and
for specifying properties that identify each of the tiers and the components of the tiers.

21. (CANCELED)

22. (CURRENTLY AMENDED) The article of manufacture of claim ~~[[21]]~~ 17, wherein the captured information is ~~selected from a group comprising~~ information about tiers, workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

23. (CURRENTLY AMENDED) The article of manufacture of claim ~~[[21]]~~ 17, wherein the Meta-model is updated and kept in synchronization with any updates made to the multi-tier business application via the Topological Multi-Tier Business Application Composer.

24. (CURRENTLY AMENDED) The article of manufacture of claim ~~[[21]] 17~~, wherein the Meta-model is accessible by other tools.